

# Technologies Render Views of Earth for Virtual Navigation



***Stennis Space Center  
Langley Research Center***

***TerraMetrics Inc.  
Littleton, Colorado***

## **NASA Technology**

- ◆ Controlled flight into terrain poses a threat to pilots in bad weather, fog, or nighttime flights
- ◆ To improve aviation safety for pilots in poor visibility, NASA began exploring the possibilities of synthetic vision—creating a realistic graphical display of the terrain outside for use by the pilot



## **Partnership**

- ◆ Langley partnered with TerraMetrics through the Small Business Innovation Research (SBIR) program to develop 3D terrain rendering technology
- ◆ To produce its visuals, TerraMetrics relied on Stennis' Scientific Data Purchase Program
- ◆ The company created a special graphical representation of the Moon for NASA to test flight simulators and even lunar lander vehicles

## **Benefits**

- ◆ TerraMetrics commercialized the technology as the TruEarth satellite imagery and terrain data product line
- ◆ Its imagery powers Google Earth and Google Maps software
- ◆ The technology is also well suited for online mapping and flight deck display programs